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PART III-2

OFFICE OF THE SECRETARY, BANGALORE WATER SUPPLY AND SEWERAGE BOARD

Notification, dated 20th August 1976

No BWS3B/C2-V-21/1113/76-77. In exercise of the powers conferred by Sections 84 and 88 of the B.W.S &S. Act 1964 (Karnataka Act No. 36 of 1964) and the B W.S. & S. Amendment Act 1965 (Karnataka Act No. 6 of 1966) and all other powers enabling it in this behalf and with the previous approval of the State Government in No. HM A 27 MNE 74 dated 10th May 1976 and, 16th August 1976, the Bangalore Water Supply and Sewerage Board hereby makes the following Regulations, the Draft of the same having been previously published as required under Sub-Section (2) of the Section 88 of the said Act, vide Notification No BWS3B/C4/NEW/694/74 dated 5th 6th March 1974, published in the Local Newspapers and in the *Karnataka Gazette* dated 28th March 1974, Namely :

1. SHORT TITLE AND COMMENCEMENT :

(a) These Regulations may be called the Bangalore Sewerage Regulations, 1974.

(b) They shall be deemed to have come into force from 1st May 1974.

2. APPLICATION FOR HOUSE CONNECTIONS

(a) The owner, lessee or occupier of premises having a private Sullage drain or soil pipe within the Bangalore Metropolitan area who desires to have such drain or pipe connected to and discharge into the Board Sewer shall make an application to the sanitary Engineer of the Board in the form prescribed (Schedule 'A') through a Person Licensed by the Board (person shall mean a plumber, Contractor, Consulting Engineer, Sanitary Engineer or his nominated Engineer who has been authorised by the Board to undertake the work of connecting the sewerage along with other appurtenances). The application shall be accompanied by the Corporation Sanctioned Plan, in duplicate, and a clear drawing also in duplicate, and drawn to Scale showing thereon all the proposed drains and pipe lines with size, gradients, levels of ground surface, depth of the proposed drain, position of every gulley, well, pipe, waste pipe ventilator pipe, water closet, bath, lavatory, urinal, inlets, sink, tap or other appliances on the premises connected or proposed to be connected to such drains and pipes and name of the streets adjoining the premises. It shall also be accompanied by an endorsement for having paid the road cutting charges to the appropriate authority with the receipt or challan in original.

(b) Every such application for house connection shall be submitted through a licensed person on the current approved list of the Board and shall be accompanied by a fee of Rs. 50/- to serve as an advance payment for inspection and test of internal work, the actual amount being determined by the Sanitary Engineer in each case.

3. APPLICATION FOR DISCHARGE OF TRADE AND INDUSTRIAL EFFLUENT

(a) The Owner, lessee, or occupier of the trade or industrial premises who desires to discharge the trade or industrial effluent directly or indirectly into the Board sewer shall make an application to the Board giving particulars of trade or industrial waste along with the following details :—

(i) Nature of trade or Industry.

(ii) Volume of waste likely to be discharged per day.

(iii) Maximum hourly flow,

(iv) Period of discharge.

(v) Type of waste acidity-its P. H. alkalinity-its P.H.

(vi) Type of suspended solids (Mg/Litre).

(a) Organic solids (mg/Ltr.)
(b) Total solids (Mg./Ltr.)

(vii) Volatile matter (Percentage).

(viii) Bio-chemical oxygen demand (b.o.d.)

(ix) Colour of waste.

(x) Toxic components of waste, (a) Phenol, (b). Cyanide, (c) Chromium, (d) other components, (e) Temperature of waste before it enters the sewers.

(b) Every such application for discharge of trade or industrial waste into the Board sewer shall be accompanied by a Deposit upto Rs. 500 to serve as an advance payment to take up analysis of the waste to ascertain as to whether such effluent is within the permissible limits, the actual amount in each case being determined by the Sanitary Engineer.

4 SANCTION OF SERVICE CONNECTION.

(i) Sanction to the service connections shall be granted by the Sanitary Engineer or by the officer authorised by the Board in this behalf after satisfying himself as regards all necessary requirements.

(ii) The service connection from the trade or industrial premises shall be sanctioned by the Chief Engineer or by the Officer autorised by the Board in this behalf after satisfying himself as regards all necessary requirements.

5 QUALITY OF PIPES AND FITTINGS AND SPECIFICATIONS.

(a) No person shall, for the purpose of connecting sullage, sewage or trade and industrial waste into the Board sewer, shall use any pipe and other sanitary fittings or appliances other than of the quality as per specifications prescribed by the Board and approved by the Sanitary Engineer for all service connections.

(b) The Board may prescribe the size, nature of materials, workmanship, strength and mode of arrangements, connections disconnections, alteration and repair of pipes, soil pans, water closets, bath, cisterns and all other Sanitary appurtenances and forbid any arrangements of any fitting or allow flow of any waste through the same which in the opinion of the Board is likely to interfere with the free flow of its contents, or affect prejudicially the treatment and disposal of the same.

6 EXTENSION, ALTERATION AND REMOVAL OF EXISTING CONNECTIONS:—

The owner or lessee or resident of a premises can make an application for any extension, alteration or removal of an existing connection through a Licenced person of the Board in the form prescribed and accompanied by three copies of Prints showing thereon the existing lines in blue and the proposals in red. There shall be no extension, alteration or removal of connection or fittings in existence on the date of application except with the written permission issued in this behalf by the Sanitary Engineer.

7 NUMBER OF CONNECTIONS OF A PREMISES :—

(a) Any premises shall have not more than one Sanitary Service connection to the Board sewer. Special cases where from considerations of levels or other peculiar circumstances the Sanitary Engineer shall have discretion to authorise more than one connection subject to approval by the Chief Engineer of the Board.

(b) if the Sanitary Engineer or the Officer authorised by the Board in this behalf deems it necessary at any time, in the interest of proper drainage, to alter the position or in any way modify on existing connection. he shall direct making of such change or alteration after giving not less than 7 days notice in writing to the owner or lessee of the premises. The cost of such alterations should be met entiraly by the concerned owner or the lessee of the premises.

8. ACCESSIBILITY OF PIPES AND FITTINGS.—

All pipes and fittings within the premises shall as far as practicable be so placed as to admit of easy access, examination, repair or renewal.

9. EXECUTION OF WORKS THROUGH THE LICENCED PLUMBER

All Sanitary connections – alterations, or extension, or repair of any sanitary connections shall be done by a person duly licenced by the Board.

10 NOTICE OF COMPLETION

The owner or lessee of the premises where a house connection is either completed or subsequent repairs or renewals are done shall give the Sanitary Engineer as notice in writing specifying the date and time at which such work will be ready for inspection and which requires being connected to an existing sewer (Schedule-B). Such notice shall be diverted at least 7 days before the date specified as aforesaid.

11 APPEAL AGAINST REFUSAL

Whenever the Sanitary Engineer refuses to sanction any house connection under section 5 and 6 above he shall state the specific grounds for such refusal and the applicant may appeal to the Chief Engineer. setting out the facts which in his opinion may call for reconsideration.

12 POWER TO REMOVE, ALTER, OR PULL DOWN THE WORK

If any work either begun or completed tobe found to be in contravention of any of the provision of these regulations a notice pointing out such contrsventions shall be issued by the Sanitary Engineer and servnd on the owner or lessee of the premises stating that such defect shall be set right either by altering or redoing the work within a reasonable period as specified in the notice failing which the Sanitary Engineer shall get such alteration or redoing through a Licecsed Plumber and recover the cost from the owner or lessee of the premises as revenue arrears.

13 TOLERANCE LIMITS FOR TRADE OR INDUSTRIAL EFFLUENTS DISCHARGED INTO THE SEWERS OF THE BOARD

(a) The Industrial effluents containing solids, such as ash, features, straw, plastic, wood, lime, slurry, lime residue, beer or distillery slops, chemical or paint residues, gross solids from cannery wastes, cinder, sand, tar, hair, rag, Metals, shavings, garbage and broken glass, shall not be permitted to be discharged into the Board sewers.

(b) Trade or Industrial effluents satisfying under test the tolerance limits as detailed in table-1 (conforming to IS 3306-1965, vide Table-1) shall be permitted for being discharged to Board Sewers.

(c) The discharge must be uniform as far as possible. As to rate of flow and as re composition the above recommended limits shall be adhered to.

(d) MEASUREMENT OF QUANTITY OF WASTE DISCHARGED INTO THE SEWER SYSTEM

The Board shall require to instal measuring devices including those for the rate flow indicators such as over the V-notch weir, rectangular weir or with continuous recording devices with flow totalisers as it thinks suitable. The charges for such installation shall be borne by the owner of the installation.

(e) The Indstrial effluent shall be tested by the Board as and when required and the charges in this connection to be met by the industries are as follows :—

Rs. 5 per 1000 gallons for BOD upto 300 ppm. and suspended solids upto 250 ppm. 50 paise for additional *lb.* load suspended solids over and above normal charge load of 250 ppm.

Rs. 2-50 for every additional *lb.* of BOD transmitted through the effluent over and above the normal charge load of 300 ppm.

14 SAMPLING :

Representative samples of the industrial effluent shall be obtained as prescribed in IS 2488 (part 1)-1966.

Tests for all the characteristics given in Table-1, except percent sodium, shall be carried out as prescribed in IS 2488 (part-1)-1966. For percent sodium the determination shall be carried out as prescribed in Appendix-A of IS 2296 -1963.

15 PRETREATMEMT OF TRADE EFFLUENT,

If the trade or industrial effluent to be discharged into any Board Sewer does not conform to the standards prescribed in the Table-1, the Chief Engineer or any other Officer authorised by the Board may order for pretreatment of such effluent to conform to such standard before it is admitted to the Board sewers.

16 IRRIGATION WITH SEWAGE OR INDUSTRIAL WASTE EFFLUENTS :

No sewage or industrial waste effluent shall be used for irrigation purposes without the written approval from the Department. Direct disposal of sewage or industrial waste effluents for irrigation of crops to be used for human consumption or for washing of cattle is prohibited.

17 POLLUTION OF GROUND WATER PROHIBITED :

In the areas where underground drainage lines are not laid suitable septic tanks/soak pits shall be provided as approved by the Sanitary Engineer for disposal of drainage. Such drainage shall not be discharged into any well either abandoned or constructed for that purpose, and which is carried to such a depth as to penetrate water bearing strata or into a crevice or sinkhole or other opening either natural or artificial or into a rock formation which will or may permit the pollution or contamination of ground water. No spetic tank or soak pit shall be constructed within six metres from any water pipe lines.

18 The Board shall have power to issue appropriate directions to comply with the regulations.

19 PUNISHMENT FOR CERTAIN OFFENCES :

Whoever contravenes any of the provisions of these regulations mentioned in the first column of the following Table-II; shall be punishable with a fine which may extead to the amount specified in that behalf in the third column of the said Table-II, and in the case of a continuing contravention or failure, with an additional fine which may extend to the amount specified in the fourth column of that Table-II, for every day during which such contravention or failure is continued.

T. S. RUDRAPPA; Secretary, B: W. S. and S. B.

TABLE-I TOLERANCE LIMITS FOR INDUSTRIAL EFFLUENTS DISCHARGED INTO BOARD SEWERS

As per clause 2.2 of I S. 3306-1965.

Sl. No.	Characteristic	Tolerance limit
i)	PH	5.5 to 9.0
ii)	Temperature, Max.	45°C
iii)	Suspended solids, mg/	600 (The concentration shall be as prescribed by the authority from time to time for each section of the sewerage).
iv)	Biochemical oxygen demand for 5 days at 20°C, mg/l, Max.	500
v)	Oils and grease, mg/l, Max.	100
vi)	Lead (as Pb), mg/l, Max.	1
vii)	Copper (as Cu), mg/l, Max.	3
viii)	Zinc (as Zn), mg/l, Max.	15
ix)	Chromium (as Cr 6+), mg/l, Max.	2
x)	Nickel (as Ni), mg/l, Max.	2
xi)	Cyanide (as CN), mg/l, Max.	2-0
xii)	Phenolic compounds (as C_6 H_5 OH) mg. Max.	5
xiii)	*Sulphates (as SO4) mg/l, Max.	1000
xiv)	*Total Dissolved solids (inorganic) mg/l, Max.	2100
(xv)	*Chlorides (as CL), Mg/l, Max.	600
(xvi)	*Boron (as B) Mg/l, Max.	2.0
(xvii)	*Percent sodium, Max.	60
(xviii)	*Alpha emitters, Mc/ml, Max.	10—7
(xix)	Beta emitters, Mc/ml Max.	10—6

*These requirements shall apply only when, after treatment, the sewage effluent is disposed of for irrigation and on land.

Approval to the Draft Amendment to Section 84 of Sewerage Regulations of Bangalore Water Supply and Sewerage Board:

TABLE-II

Provision of the regulation	Subject	Fine which may be imposed (As revised)	Daily fine which may be imposed (As revised)
		Rs.	Rs.
Regulation 2	Private drain not to be connected to any Board Sewer without permission	50	5
Regulation 3	Trade or industrial effluent not to be connected to Board sewer without permission	100	10
Regulation 5	Non-compliance of the specification under regulation	50	5
Regulation 6	Extension, alteration and removal of existing connection not to be done without permission,		
	(a) for Private Party	50	5
	(b) For Trade and Industries	100	10
Regulation 9	Execution of work by a person other than a Licensed Person	100	10
Regulation 13	Contravention of the provision of this regulation	100	10
Regulation 15	Non-compliance of the directions for pretreatment of trade effluent		
Regulation 16	Violation of the provision of the regulation	100	10
Regulation 17	Contravention of the provisions of the regulation	100	10

Price : Rs. one only.

SCHEDULE. 'A'.

To be submitted in duplicate.

SANITARY APPLICATION FORM.

BANGALORE WATER SUPPLY AND SEWERAGE BOARD.

To:

The Sanitary Engineer,
Bangalore Water Supply and Sewerage Board,
Bangalore.

Sir,

I/we the undersigned hereby give you notice of my/our intention to drain the premises..... .... in the..... .....Divisions as described in the appended details and as shown on the accompanying plans and sections (Submitted in duplicate) and undertake to pay to the Board the cost of so much of the connection to the Board Sewerage system as is required by the provisions of the above mentioned Act and the by-laws made thereunder by the Bangalore Water Supply and Sewerage Board and to carry out the remainder of the works in accordance with provisions of the said Act by-laws.

Dated this ..... day of——19— –
Signature of person intending to drain permises.
Address,
Signature of the owner of the house.
Name in Block letters:
Address.
Signature of the person
Address

DETAILED DESCRIPTION OF WORK AND SPECIFICATION OF MATERIALS

(To be filled in by applicant or person depositing plan).

N.B —Only new or altered work to be described in the following particulars.

1	Description of size of sewers.=	
	(a) Main sewer ...	
	(b) Branch sewer ...	
	(c) Materials used ...	
	(d) Method of jointing ...	
2	Bedding of pipes.—	
	(a) Method of bedding ...	
	(b) Thickness and width of beds of concrete ...	
	(c) Thickness of concrete around pipes. ...	
	(d) Protection of sewer pipes laid under wall ...	
3	Traps Description of Interceptor—	
	(a) Lavatory water pipes ...	
	(b) Bayh water pipes ...	
	(c) Sink ...	
	(d) Gulley traps ...	
	(e) Water-closed traps ...	
	(f) Grease traps ...	
	(g) Slope sink ...	
	(h) Urinal ...	
	(i) others ...	
4	Manholes and inspection chambers:—	
	(a) Thickness of wall ...	
	(b) Description of bricks ...	
	(c) Description of rendering ...	
	(d) Description in invert channels ...	
	(e) Size and description of cover and manner of fixing ...	
	(f) Depth of Chambers	
5	Ventilation of sewers—	
	(a) Fresh air inlet position ...	
	(b) Height above the nearest ground level ...	
	(c) Outlet shaft position terminal at top ...	

6 Soil pipe, waste pipe and ventilating pipe connections :

(a) Lead and iron pipes ...
(b) Lead pipe or trap with cast iron pipe ...
(c) Stoneware pipe or trap with lead pipe ...
(d) Lead soil pipe or trap with stoneware pipe or trap
(e) Cast iron pipe with stoneware drain ...
(f) Stoneware trap with cast iron soil pipe ...

7 Ventilation of water closet trap materials and supports. ...

8 Water closet (apartments) :

(a) At or above ground level approach from floor material. ...
Floor fall towards door ...

(b) Size of window made to open ...
Position of the same ...
Means of constant ventilation ...
Position of the same ...

(c) Water closet apparatus ...
Description of pan, basin etc., ...
Flushing Cistern, kind, Capacity ...
Flush pipe. ...
Materials ...
Internal diameter ...
Union with basin ...

9 Depth of the Board sewer below street level and depth of the connection pipes ...

10 Schedule of pipes. ...

	Materials	Diameter	Weight	Method of Jointing
(a) Main sewage pipes				
(b) Branch sewage pipes				
(c) Soil pipes				
(d) Ventilating pipes other than soil pipes				
(e) Waste pipes				
(f) Rainwater pipes				
(g) Anti-syphon pipes				

11 Whether seperate drain for rain water and foul water provided. ...

12 Whether a copy of sanctioned plan approved by the Corporation is enclosed

13 Whether road cutting charges leviable by the Corporation are paid and endorsement issued by Corporation is enclosed

Signature of Owner

Signature of Person.

SCHEDULE—'B'

BANGALORE WATER SUPPLY AND SEWERAGE BOARD

DRAINAGE OF PREMISES

To

The Sanitary Engineer,

Sir,

I/We the undersigned hereby give you notice that the drainage works in the premises ..... will be completed entirely and ready for final inspection on the ..... date ..... at ..... hour of ..... 19 ..... and request inspection and approval of the same.

The work was sanctioned by the Chief Engineer/Sanitary Engineer vide No. ..... dated .....

Certified that the work is completed as per plans and specifications approved.

Signature of the person incharge of drainage of premises ...

Address ...

Name of the owner of the house and address ...

Name and Signature of the person carrying out the work Dated

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